

REMARKS

The above-identified patent application has been amended and Applicants respectfully request the Examiner to reconsider and again examine the claims as amended.

Claims 1-37 are pending in the application. Claims 8, 13, 15, and 16 are objected to but describe allowable subject matter. Claims 1-7, 9-12, 14, and 17-27 are rejected. Claims 1, 4, 15, 17, and 22 are amended herein. Claims 28-37 are new.

As an initial matter, Applicants cannot identify that drawings earlier submitted on February 7, 2002 have been indicated as approved by the Examiner. Approval of the drawings is again respectfully requested.

The Rejections under 35 U.S.C. §103(a)

The Examiner rejects Claims 1-7, 9-12, 14, and 17-27 under 35 U.S.C. §103(a) as being unpatentable over Johnson (U.S. Patent number 5,553,209) in view of Hayashida et al. (U.S. Patent number 6,067,502). The Examiner asserts that "...Johnson teaches the symbol expansion method and apparatus comprising: selecting a map portion containing one or more map display symbols on a computer map display... ." The Examiner recognizes that Johnson et al. "...does not teach [the] symbol expansion display." The Examiner relies upon Hayashida et al. as teaching "...presenting a symbol expansion display having information associated with the one or more map display symbols on the computer map display, wherein the symbol expansion display is displayed in combination with the one or more map display symbols." The Examiner concludes "[i]t would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the symbol expansion display of Hayashida into the map display symbols of Johnson... ."

Applicants have amended Claim 1 herein to recite "...presenting a symbol expansion display having information associated with the one or more map display symbols on the computer map display, wherein the one or more map display symbols include map display symbols selected from among one or more de-cluttered map display symbols, two or more normal map display symbols, and two or more cluttered map display symbols and wherein the symbol expansion display is displayed concurrently with the one or more map display symbols."

Applicants submit that independent Claim 1 is patentably distinct over Johnson et al., whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "...presenting a symbol expansion display having information associated with the one or more map display symbols on the computer map display, wherein the one or more map display symbols include map display symbols selected from among one or more de-cluttered map display symbols, two or more normal map display symbols, and two or more cluttered map display symbols, and wherein the symbol expansion display is displayed concurrently with the one or more map display symbols," as set forth in Claim 1.

With this particular arrangement, the present invention provides a symbol expansion display that can provide information associated with one or more map display symbols on a computer map display, concurrently with the one or more map display symbols. As the Examiner is aware, the Applicants are entitled to be their own lexicographer. In this case, Applicants submit that the symbol expansion display is clearly defined in the specification to have particular meaning. For example, as described on page 7, middle paragraph, and reproduced below, referring to FIG. 1A, the specification states,

"...when a symbol or a group of symbols is selected using the point[ing] device 18, or other means for selecting, the symbol expansion system generates a symbol expansion display. [emphasis added] The symbol expansion display is a tabular list associated with the symbol, group of symbols, or underlying symbols. An exemplary symbol expansion display can include symbol expansion graphics, and/or symbol expansion data. [emphasis added] The tabular list can include

only one symbol expansion graphic and one symbol expansion data. For example, when the normal map display symbol 22 is selected with the pointing device 18, the symbol expansion system 10 can provide a symbol expansion display 52 that includes a symbol expansion graphic 54 that corresponds to the record graphic 40 that further corresponds to the normal map display symbol 22. The symbol expansion system 10 can also provide a symbol expansion display 52 that includes symbol expansion text or data 56 that corresponds to the record data 42 that further corresponds to data associated with map display symbol 22. For example, the symbol expansion data 56 can indicate the number of troops associated with the map display symbol 22. Additionally, a lead line 58 can be displayed to guide a person viewing the map to visually associate the symbol expansion display 52 with the map display symbol 22."

The above-mentioned symbol expansion graphics and symbol expansion data are also given particular meaning throughout the specification. For example, at page 6, lines 10-11 it is described that the symbol expansion graphic (e.g., 54, FIG. 1) "...can have a different appearance that that of the map symbol display 22, including but not limited to, a different size, shape, and color." For another example, as stated above and at page 7, lines 20-23, "[t]he symbol expansion system 10 can also provide a symbol expansion display 52 that includes symbol expansion text or data 56 that corresponds to the record data 42 that further corresponds to data associated with map display symbol 22." FIG. 2 clearly shows an exemplary symbol expansion display 106, having the symbol expansion graphics 108a, 110a, 112a, 114a in combination with symbol expansion data 108b, 110b, 112b, 114b.

Furthermore, normal, de-cluttered, and cluttered map display symbols are given particular meaning in the specification, which states, at page 4, lines 18-28,

"[s]ymbols or icons generated using the technique described in the aforementioned U.S. Patent No. 5,553,209 to Johnson et al. will be called de-cluttered map display symbols. De-cluttered map display symbols include those

that contain both single and multiple levels of hierarchy. Those cluttered map display symbols or icons that are replaced by a de-cluttered map display symbol are herein called underlying symbols.

Symbols or icons that are not de-cluttered, e.g. those that identify a single entity without an underlying hierarchy, are herein called normal map display symbols. If normal map display symbols are in close proximity, touching, or overlapping, they are herein called cluttered map display symbols. Normal, cluttered, and de-cluttered map display symbols are collectively called map display symbols."

For example, FIG. 1 includes a normal map display symbol 22, cluttered map display symbols 24a-24c, and a de-cluttered map display symbol 26. It can be seen that the symbol expansion display 60 contains information associated with the cluttered map display symbols 24a-24c, and the symbol expansion display 68 contains information associated with the de-cluttered map display symbol 26, making cluttered, de-cluttered, and normal map display symbols 24a-24c, 28, respectively, more understandable.

As described, for example, at page 4, lines 2-4, "[w]ith this particular arrangement, the symbol expansion display can provide enhanced information on the computer map display to provide a viewer of the map with both more information as well as information that is more easily understood."

The Examiner recognizes that Johnson et al. does not describe or suggest the claimed symbol expansion display. The Examiner relies upon Hayashida et al. FIGS. 69 and 40-48 to show the claimed symbol expansion display. However, Applicants submit that Hayashida et al. neither describes nor suggests the claimed "...symbol expansion display having information associated with the one or more map display symbols, wherein the one or more map display symbols include map display symbols selected from among one or more de-cluttered map display

symbols, two or more normal map display symbols, and two or more cluttered map display symbols... ."

Referring, for example, to FIG. 33 of Hayashida et al., a text box 186 appears in a display 108. However, Applicants submit that the text box 186 provides information associated with a single normal map display symbol, not associated with one or more de-cluttered map display symbols, two or more normal map display symbols, or two or more cluttered map display symbols as claimed. For example, the arrow symbol in FIG. 33 corresponds to a single vehicle, and is, therefore, a single normal map display symbol as defined in the present application.

The Examiner also uses FIG. 69 and column 64, lines 25-42 of Hayashida et al. to teach the claimed symbol expansion display. As best understood by the Applicants, the display shown in FIG. 69 of Hayashida et al. has a second display 108 and a third display 110. The third display 110 is a map having a map display symbol representing a vehicle, which is a single normal map display symbol. The second display 108 lists a variety of lines of text 418-424, each line forming a type of input that can be used to specify a destination. It appears that when a user places a cursor 406 over one of the lines of text 418-424, the user is then able to specify the destination in accordance with the line of text. For example, if the user puts the cursor 406 over the text 420, the user would then enter the street name to identify the destination. The system of Hayashida et al. then calculates a route in accordance with the street name. Applicants again submit that the arrow symbol in FIG. 69 corresponds to a single vehicle, and is, therefore, a single normal map display symbol as defined in the present application.

Furthermore, as the Examiner is aware, and as found in MPEP §2142, in order to establish a prima facie case of obviousness "...there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." Applicants respectfully submit that the Examiner has not met this burden in order to establish prima facie obviousness.

The Examiner attempts to combine selecting a map portion of Johnson et al. with, for example, a text box 186 (FIG. 33) of Hayashida et al., when no such combination has been suggested by either reference.

In view of the above, Applicants submit that Claim 1 is patentably distinct over Johnson et al., whether taken alone or in combination with Hayashida et al.

Claims 2-7, 9-12, 14, and 22-24 depend from and thus include the limitations of Claim 1. Thus, Applicants submit that Claims 2-7, 9-12, and 14 are patentably distinct over the cited references generally for the reasons discussed above in conjunction with Claim 1.

Claim 4 is amended herein merely to correct a typographical error. Applicants submit that Claim 4 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "...presenting at least one of one or more symbol expansion graphics and one or more symbol expansion data associated with the selected record components in the symbol expansion display concurrently with the one or more map display symbols," as set forth in Claim 4. As described above, the symbol expansion graphics and the symbol expansion data are parts of the symbol expansion display. Referring, for example, to FIG. 1A, Applicants respectfully point out that the claimed symbol expansion graphics provided in a tabular listing as shown, for example, as items 62a-62c, are not the same as the map display symbols, shown, for example, as items 24a-24c. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion display at column 4, lines 19-65. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 7 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... filtering the record data of the one or more map symbol records to provide the one or

more symbol expansion data corresponding to a selected record data type...," as set forth in Claim 7. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 3, lines 25-35. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 9 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... filtering the record data of the one or more map symbol records to provide symbol expansion data corresponding to a selected record data range," as set forth in Claim 9. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 3, lines 25-35. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 10 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... algorithmically combining map symbol records to provide the one or more symbol expansion data," as set forth in Claim 10. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 3, lines 25-35. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 11 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... providing the one or more symbol expansion graphics, movable by the user on the computer map display, and associated with the record graphics components of the one or more map symbol records," as set forth in Claim 11. The Examiner asserts that Johnson et al.

teaches the claimed symbol expansion data at column 1, lines 15-22. Applicants respectfully disagree and submit that Johnson merely teaches map display symbols, which, as described above, are not the same as symbol expansion graphics. As described above, the symbol expansion graphics can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 12 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... providing the one or more symbol expansion data, movable by the user on the computer maps display, and associated with the record data components of the one or more map symbol records ," as set forth in Claim 12. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 2, lines 60-67. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 14 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... providing a lead line from the map portion to the symbol expansion display where the lead line moves in accordance with the position of the symbol expansion display," as set forth in Claim 14. An exemplary lead line is shown in FIG. 1 as lead line 66. The Examiner asserts that Johnson et al. teaches the claimed lead line and symbol expansion display at column 3, lines 5-13. Applicants can find in Johnson et al. no teaching of the claimed lead line and respectfully request clarification. Applicants also cannot find the claimed lead line in Hayshida et al. Furthermore, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants have amended Claim 22 herein to recite " the computer map display is displayed at a first scale and the symbol expansion display is displayed concurrently with the computer map display at the first scale."

Applicants submit that Claim 22 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... the computer map display is displayed at a first scale and the symbol expansion display is displayed concurrently with the computer map display at the first scale... ," as set forth in Claim 22. The Examiner asserts that Johnson et al. teaches the symbol expansion display at column 5, lines 20-27. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 23 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... wherein each of the one or more symbol expansion graphics is associated with a lower level of hierarchy of one of the one or more map display symbols," as set forth in Claim 23. The Examiner asserts that Johnson et al. teaches the symbol expansion graphics at column 5, lines 41-51. As described above, the symbol expansion graphics can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 24 is further patentably distinct over Johnson, whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... each of the one or more symbol expansion data is associated with a lower level of hierarchy of one of the one or more map display symbols," as set forth in Claim 24. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 5, lines 41-51. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants have amended Claim 17 here to recite "...a presentation processor that receives information concerning the one or more map display symbols selected by said selecting device and which presents a symbol expansion display related to the map display region on the computer map display, wherein the one or more map display symbols include map display symbols selected from among one or more de-cluttered map display symbols, two or more normal map display symbols, and two or more cluttered map display symbols, and wherein the symbol expansion display is displayed concurrently with the one or more map display symbols."

For substantially the same reasons described above in conjunction with Claim 1, Applicants submit that independent Claim 17 is patentably distinct over Johnson et al., whether taken alone or in combination with Hayashida et al., since the cited references neither describe nor suggest "... a presentation processor that receives information concerning the one or more map display symbols selected by said selecting device and which presents a symbol expansion display related to the map display region on the computer map display, wherein the one or more map display symbols include map display symbols selected from among one or more de-cluttered map display symbols, two or more normal map display symbols, and two or more cluttered map display symbols, and wherein the symbol expansion display is displayed concurrently with the one or more map display symbols," as set forth in Claim 17.

Claims 18-21 and 25-27 depend from and thus include the limitations of Claim 17. Thus, Applicants submit that Claims 18-21 and 25-27 are patentably distinct over the cited references generally for the reasons discussed above in conjunction with Claims 17.

Applicants submit that Claim 18 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... a display processor which receives and formats each of the one or more selected record components for presenting at least one of one or more symbol expansion graphics and one or more symbol expansion data in the symbol expansion display in combination with the one or more map display symbols," as set forth in

Claim 18. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion display, symbol expansion graphics, and symbol expansion data at column 7, lines 39-58. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 19 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "...means for providing the one or more symbol expansion graphics..." as set forth in Claim 19. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion graphics at column 1, lines 15-22. As described above, the symbol expansion graphics can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 20 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... means for providing the one or more symbol expansion data..." as set forth in Claim 20. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 2, lines 60-67. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 25 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... the computer map display is displayed at a first scale and the symbol expansion display is displayed in combination with the computer map display at the first scale," as set forth in Claim 25. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion display at column 5, lines 41-51. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 26 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... each of the one or more symbol expansion graphics is associated with a lower level of hierarchy of one of the one or more map display symbols," as set forth in Claim 26. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion graphics at column 5, lines 41-51. As described above, the symbol expansion graphics can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

Applicants submit that Claim 27 is further patentably distinct over Johnson et al., since the cited reference neither describes nor suggests "... each of the one or more symbol expansion data is associated with a lower level of hierarchy of one of the one or more map display symbols," as set forth in Claim 27. The Examiner asserts that Johnson et al. teaches the claimed symbol expansion data at column 5, lines 41-51. As described above, the symbol expansion data can form a part of the symbol expansion display. However, in his Office Action, the Examiner recognizes that Johnson et al. does not teach the claimed symbol expansion display.

In view of the above, Applicants submit that the rejection of Claims 1-7, 9-12, 14, and 17-27 under 35 U.S.C. §103(a) should be removed.

Claims 28-33 are new in the application. Claims 28-30 depend from and thus include the limitations of Claim 1. Claims 31-33 depend from and thus include the limitation of Claim 17. Thus, Applicants submit that Claims 28-30 and 31-33 are allowable over the cited references of record in this case generally for the reasons discussed above in conjunction with Claims 1 and 17, respectively.

Allowable Subject Matter

The Examiner allows claims 8, 13, 15, and 16, stating that these claims "...are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims." Applicants have amended Claim 15 herein merely to correct a typographical error.

For the above reasons, Applicants submit that amended independent Claim 1, from which Claims 8, 13, 15, and 16 depend, is patentably distinct over the cited references. Therefore, Applicants submit that Claims 8, 13, 15, and 16 are allowable in their present dependent form.

In addition, however, Applicants have included herein new claims 34, 35, 36, 37, which correspond to original Claims 8, 13, 15, and 16, respectively, having all of the limitations of the base claim and any intervening claims. Therefore, Applicants submit that new Claims 34-37 are allowable.

In view of the above Amendment and Remarks, Applicants submit that Claims 1-37 and the entire case are in condition for allowance and should be sent to issue and such action is respectfully requested.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

Appl. No. 10/039,331
Reply to Office Action of July 16, 2004

Docket No. RTN-139PUS

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

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Respectfully submitted,

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